

011-0705

AN ANALYSIS OF PRACTICES OF ENVIRONMENTAL AND SOCIAL RESPONSIBILITY IN COMPANIES THAT ADOPT THE BRAZILIAN NATIONAL QUALITY AWARD

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POMS 20th Annual Conference

Orlando, Florida, U.S.A.

May 1 to May 4, 2009

Abstract: The purpose of this paper is to present a preliminary analysis of organizational practices of environmental and social responsibility in companies that adopt the Brazilian National Quality Award. The award is the highest form of recognition of excellence in business management in the country. The work is based on an analysis of secondary data published by the National Quality Foundation. The paper categorizes 72 organizational practices of 51 companies from 17 different industrial sectors in terms of social responsibility and environmental concern. The results show that most of the organizational practices cannot not be considered exemplary as expected for companies in the journey towards performance excellence.

Key-words: national award; sustainability; social responsibility; performance excellence.

Introduction

From the evolution of quality management concept, performance excellence models have been proposed in various nations around the world. The main purpose of such models

are to promote quality awareness, stimulate quality improvement, and foster competitiveness in companies from many parts of the world (Mavroidis et al., 2007). A study conducted years ago identified 76 countries with excellence models, or national quality awards (Cauchick Miguel, 2004a), among them Brazil. The Brazilian National Quality Award – PNQ are comparable to many important proposals in the world (Cauchick Miguel, 2001). The award is the highest form of recognition of excellence in business management in the country.

PNQ was established 16 years ago and many organizations from different industrial sectors have adopted the framework for achieving performance excellence. One of the distinctions of PNQ is a specific criterion for assessing social responsibility and environmental concern, which is nowadays of paramount importance face with the need for sustainability. In this context, this paper aims at analyzing secondary data published by the Brazilian National Quality Foundation by examining more than 80 organizational practices related to social responsibility and environmental concern in companies from different industrial sectors.

The paper is divided as follows. Next section presents a literature review related to performance excellence models followed by research methods. Then, results are discussed and, finally, concluding remarks are outlined.

Literature Review

The literature review is divided into three parts. The first one establishes the basis of the Brazilian National Quality Award (PNQ) in addition to a preliminary analysis of international publications concerning PNQ. The second part outlines the criterion for performance excellence, as for the of interest of this study (“Society”). Part three highlights some gaps in the publication concerning the Brazilian National Quality Award.

Performance Excellence Framework – The Brazilian National Quality Award

The National Quality Award of Brazil (*PNQ*) is managed by the *Fundação Nacional da Qualidade – FNQ* (National Quality Foundation), a private non-profit organization established in 1991. The award was officially launched in 1992. The primary purpose of the award is to support, to encourage and to recognize the development of effective total quality management by companies operating in Brazil. Its criteria and assessment stages are designed to help identify organizational strengths and areas for improvement.

Five categories of companies can be awarded, namely: large organizations (more than 500 full time employees); medium-sized enterprises (between 51 and 500 full time employees); small-sized companies (up to 50 full time employees); non-profit organizations, and government institutions.

The award criteria are built on a set of core values and concepts, which are consistent with those of highly successful organizations. These core values and concepts include (FPNQ, 2008): customer and market knowledge, innovation culture, leadership and constancy of purposes, organizational learning, partnership development, process and information orientation, social responsibility, systemic thinking, value generation, valuing people, vision of the future. The evaluation framework of the Brazilian Quality Award comprises 8 evaluation criteria, sub-divided into 24 items. Table 1 shows the eight examination criteria including the items in each criterion, and the weighting attached to each one.

Applicants must address the set of examination items showed on Table 1. As can be seen, the model uses a 1,000-point scoring system. The award relies on three dimensions for determining the numerical score of the examination items. The term scoring refers to the process of identifying strengths and areas for improvement, named improvement opportunities. The dimensions considered are approach, application and results. Applicants

are required to provide information relevant to the evaluation dimension(s) specified for a particular examination item. Each dimension of an examination item (from approach and application, or results) is given a score of 0 to 100%, in increments of 10%, depending on its level of merit. The percentage score multiplied by the point value for that item produces an item-by-item score for the application. The final score is a sum of all scores for each item. Both the final score and the report of strengths and opportunities for improvement is carried out with the assistance of a software, called Sideral[®], specially designed to use when conducting the award process.

Table 1 - Criteria, Items and Scores of the National Quality Award of Brazil (2008 Cycle).

Criteria and Items (Score)	
1. Leadership (100) 1.1 Corporate governance (40) 1.2 Leadership exercise (40) 1.3 Critical performance review (30)	2. Strategy and Plans (60) 2.1 Strategy formulation (30) 2.2 Strategy implementation (30)
3. Customer (60) 3.1 Image and market knowledge (30) 3.2 Customer relationship (30)	4. Society (60) 4.1 Social and environmental responsibility (30) 4.2 Social development (30)
5. Information and Knowledge (90) 5.1 Organizational information (30) 5.2 Comparative information (30) 5.3 Intangible assets (30)	6. People (90) 6.1 Work system (30) 6.2 People education and development (30) 6.3 Life quality (30)
7. Process (110) 7.1 Main processes and support processes (50) 7.2 Suppliers process (30) 7.3 Economic-financial process (30)	8. Results (450) 8.1 Economic-financial results (100) 8.2 Customer and market results (100) 8.3 Society results (60) 8.4 People results (60) 8.5 Main processes and support processes results (100) 8.6 Supplier results (30)
Total Score: 1000	

The award evaluation process initiates by the submission of a management report by the applicant. The applicant's management system is then reviewed and evaluated by members of the board of voluntary examiners in a three stage process (Cauchick Miguel, 2005):

- Individual review: the application report is individually reviewed by a group of up to ten examiners. Once the review is completed, charts and tables with the average score are sent to the judges for review. The judges based on the applicants' score and award categories and without knowing their names, determine the applicants that will proceed in the review process.
- Consensus review: the application reports of applicants that goes to this stage are reviewed by a smaller group consisted of one senior examiner, one reporter examiner and four examiners from last stage. The examiners determine consensus score to each of the 27 items. Once the review is completed, charts and tables with the average score are sent to the judges for review. The judges, based on the applicants' score and award categories and without knowing their names, determine the applicants that will be visited.
- Site visit: selected applicants are visited by the same six examiners of previous stage. The major objective of site visits is to confirm the responses included in the application report as well as to clarify any doubts occurred during review. Site visit planning is agreed by the applicants and the foundation. After site visit, the examiners issue a report with the major conclusions of the visit and a final score, which are sent to judges for their final review, and recommendations of award recipients.

The “Society” Criterion

This criterion of the performance excellence framework examines how the organization contributes to the economic, social, and environmental development with

sustainability. This may occur by means of minimizing potential negative impacts of its products and operations in the society. It includes how the organization interacts with society ethically and with transparency. The criterion is divided into two items, namely (FNQ, 2009):

- Social-environmental responsibility: implementation of managerial processes that directly contributes to the generation of products, processes and installations safe to the users, society and to the environment as well as promoting the sustainable development.
- Social development: implementation of managerial processes that directly contributes to foster the social development as well as to promote a favorable image of the organization to the community and society.

PNQ Literature analysis

The publications on the PNQ are not extensive. In a search in the Emerald data base with 6 key-works and combinations – in English and Portuguese – (*PNQ*, *premio nacional da qualidade*, *Brazilian national quality award*, *Brazilian quality award*, and *Brazilian award*), the number of papers was 46 in 31 referred journals. Table 2 shows the main results of this partial bibliographical search.

Table 2 - Emerald Bibliographical Search (number of papers = 46).

Item	Result
Quantity of referred journals	31
Period of publication	From 1978 to 2007 (47.8% papers published in the past 5 years – 2003-2007 - 32,.6% published in 2006 and 2007)
Number of journals out of scope of the subject	5 (16.1%: J. of Documentation; J. Financial Crime; J. Managerial Psychology; Management Law; Online Information Review)
Number of papers out of scope of the subject	7 (22.6%; Online Information Review with 3 papers)
Top three journals with largest number of papers (in relation to the total of 46)	TQM Magazine (15.2%); Int. J. Quality & Reliability Management (8.7%); Benchmarking: An Int. Journal (6.5%)
Number of papers specific to (PNQ)	3 (6.5% in relation to the total of 46)

Although the results of Table 2 are limited to one data base, they are useful for a initial analysis. In fact, when examining the articles in details, most of them are not well-related to the subject either theoretical or empirical ones. Actually, only 3 articles are related to the Brazilian National Quality Award. A preliminary conclusion is that there are very few articles on the subject of PNQ. The few articles are general overview and do not explore the performance excellence criteria. However, this requires further bibliographical search and deeper analysis.

PNQ was developed based on some awards, such as *Deming Prize* and *Malcolm Baldrige National Quality Award* (Cauchick Miguel, 2004b; 2006). Currently, there are about 76 countries and “regional” awards (e.g. *Iberoamericano Quality Award*), i.e. about 80 awards (Cauchick Miguel, 2005). In the case of publications besides the Brazilian award, the literature is much more extensive and offers a number of publications. Nevertheless, the existing frameworks are similar in essence (Cauchick Miguel, 2004a). Table 3 shows a synthesis of various publications. Most proposal from several countries are, in fact, based on the American award; 68% from the total of 25 studied award proposals had as a reference the American award (Cauchick Miguel, 2004a; 2005). The purpose of Table 3 is to illustrate the diversity on publications in various subjects related to the excellence models. Thus, it is not a extensive and structured bibliographical analysis.

Table 3 – Examples of Subjects and References Related to Excellence Framework.

Subject	References
Framework of various countries	Djerdjouri (2004); Eriksson (2004); Conti (2007)
Framework comparison	Vokurka et al. (2000); Cauchick Miguel (2001); Hui e Chuan (2002); Tan (2002); Khoo e Tan (2003); Kumar (2007)
Case studies	Eriksson (2003); Cauchick Miguel et al. (2004); Palmberg e Garvare (2006); Cauchick Miguel (2006); Ruben et al. (2007)
Impact of award in performance	Przasnyski e Tai (2002); Lee et al. (2003); Jacob et al. (2004)
Implementation in small and medium-sized companies	Kuratko et al. (2001); Armitage (2002)

Having presented the literature review, attention is turned the research methods adopted for this study.

Research Methods

The main interest of the present study is to identify best practices on environmental and social responsibility in organizations that adopt the Brazilian National Quality Award. The paper aims at presenting some practices based on the analysis of secondary data.

Firstly, public data are gathered from the (Brazilian) National Quality Foundation (www.fng.org.br). Secondly, data was registered in a MS Excel® spreadsheet by categorizing them according to the description of organizational practice, company name, industrial sector, and social or environmental practice, as illustrated in Figure 1. Thirdly, each practice was analyzed with respect to its contents and exemplarity (i.e. if the practice may be considered as common one or excellent?).

#	Criterion	Item	Practice	Industrial Sector	Co. Size	Name	Description
1	Society	Social and environmental responsibility	Eaton Ltda.	Automotive	More than 500 employees	"Oil Drop"	The program begins by identifying the customer target and the budget. Participants are contacted ...
2	Society	Social and environmental responsibility	MASA Ltda.	Plastics	More than 500 employees	"Society Commitment"	An award is delivered for the best environmental practice ...
3	Society	Social and environmental responsibility	Philips do Brasil Ltda.	Domestic appliances	More than 500 employees	"Eco Vision"	The program make efforts towards energy efficiency and components recycling ...
(...)							

Figure 1 – Part of the Research Record.

To analyze the set of organizational practices of the full record data (partially shown in Figure 1), the following questions were considered:

- How many and what kind of organizational practices are published by the National Quality Foundation?;
- How many companies and which ones publish their organizational practices?;
- How organizational practices are distributed among industrial sectors? (which are they?);
- By examining those organizational practices, are they really exemplary? (i.e., are they as excellent as expected by organizations that adopt the award framework?);

- Are there any companies that can be identified as excellent in terms of organizational practices? (for further investigation).

Results and Discussion

The preliminary results are organized according to the previous questions.

Organizational Practices on Social Responsibility and Environmental Concern

Seventy two organizational practices were identified in the data base. The practices came from 51 companies from 17 different industrial sectors. Most were associated with social and environmental responsibility (item 4.1 from the “Society” criterion) and some of them were related with social development (item 4.2 from the “Society” criterion). Regarding environmental concern, the organizational practices involve the implementation of an environmental management system (based on ISO 14001 standard), environmental education and awareness to the community, protection programs of natural resources, programs for reduction of environmental residuals, among others. However, only very few organizational practices can be categorized as exemplary, i.e., practices that are really a prominent example for the company, industrial sector, and society. Although important to the community and to the society, most practices are at basic level.

At this point in terms of depth of this investigation, it is not possible to claim if the organizational practices are an individual initiative of each company and how much resources they are investing on those practices. Nevertheless, it is evident that those initiatives are below the potential level the companies could put its efforts. Moreover, when the Brazilian National Quality Foundation publicized those in a data base the message they wish to pass ahead could result in an opposite image. Internet users might get the wrong message if they see the organizational practices as a minimal effort in companies that pursue excellence. If the

companies (whose names are stated in the data base), were adopting the framework for excellence performance why such practices would not be model? This is a question that was yet answered yet and beyond the capability of this present study. Thus, further investigation is necessary.

Profile of the Companies – Size and Industrial Sectors

Table 4 presents a summary of the companies that mostly adopt the organizational practices related to social responsibility and environmental concern. Appendix 1 lists all companies. As can be seen, Table 4 shows companies with two or more organizational practices. Most companies are medium to large Brazilian manufacturing firms within different industrial sectors; the industrial sector with most companies is the steel. Actually, it comprises four plants of a major Brazilian corporation. Two of the plants were award recipients in 2004 and 2006. It is worth mentioning that from the companies showed in Appendix 1, very few are award recipients or award runner ups.

At a company level, *Natura* is the company that deserves attention not only because of the quantity of practices but also due to the nature of the organizational practices in the data base. One of the interesting practices is the one related to the sustainable development within the supply chain especially with supply communities. It is an important issue since the company strongly depends on raw materials from an extensive range of the natural resources by contributing to the conservation of the biodiversity in the Amazon and other rich natural places in the country. In addition, it contributes to keep the natural scene conditions in the local communities as well as to enhance social work conditions. So, this company is a very interesting (and important) unit of analysis for future studies.

Table 4 – Companies with Most Organizational Practices.

Company	Industrial Sector	No. Practices	Origin	Company Size ¹
Acesita	Steel	02	Brazilian	Large
Águas de Limeira	Public Services ²	03	Brazilian	Medium
Belgo	Steel	04	Brazilian	Large
Cia. Energética Borborema	Energy	02	Brazilian	Medium
Eaton	Automotive	02	American	Large
ECT SC - Correios	Public Services ³	02	Brazilian	Medium
IBOPE	General Services	02	Brazilian	Medium
Joal Teitelbaum	Construction	02	Brazilian	Small
Klabin	Pulp and Paper	03	Brazilian	Large
Masa-Flextronics	Plastics	03	American	Medium
Natura	Cosmetics	05	Brazilian	Large
Nextel	Telecommunication	02	American	Large
SABESP	Public Services ²	02	Brazilian	Medium
U&M	Steel	02	Brazilian	Large
Volvo do Brasil	Automotive	02	Swedish	Large

Notes - ¹Large company: more than 500 employees; medium company: between 100 and 500 employees; small company: less than 100 employees; ²Water and Sewer; ³Surface Mail

Concluding Remarks

Since this is an on-going research project and it is not yet completed this paper cannot be fully conclusive. Nevertheless, more than 70 organizational practices were identified in a bit more than 50 companies from almost 20 different industrial sectors. A number of firms publicized more than two practices in the data base. Considering a critical analysis of the organizational practices identified in the data base, most are basic in the search for performance excellence. Further work will concentrate in increasing the depth of the study maybe by case-based research approach. Other possibilities would be to investigate the causal

relationship between company performance results (e.g. financial or market results) and the adoption of more sophisticated practices related to social and environmental responsibility.

Acknowledgements

The authors acknowledge a number of institutions without which these results could not be presented. Firstly, an appreciation is given to Uninove (University *Nove de Julho*) for supporting this research project and by providing a grant to the students. Secondly, the first author thanks to National Research Council (CNPq) for research support throughout the past years. Finally, Paulo A. Cauchick Miguel is also affiliated to the Production Engineering Department of the Polytechnic School at the University of São Paulo (USP) and, thus, this institution should be acknowledged as well.

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Appendix 1 – All Companies.

Company	Industrial Sector
Accor Brasil	Hospitality Services
Acesita	Steel
Águas de Limeira	Public Services
Albras	Steel
Bandeirante Energia	Energy
Belgo-Arcelor Brasil	Steel
Brasal Refrigerantes	Beverages
Caterpillar Brasil Ltda.	Automotive Equipment
CELG Distribuição	Energy
Central do Sistema FMUSP HC	Health Care
Cia Nitro Química Brasileira	Chemical
Cia. de Eletricidade de Nova Friburgo	Energy
Cia. Energética da Borborema-Celb	Energy
Correios DR/PR	Public Services (Mail)
Deten Química S.A.	Chemical
Eaton	Automotive
ECT– DR Santa Catarina - Correios	General Services
Eletropaulo Metropolitana de São Paulo	Public Services (Energy)
Embafort	Packaging
Embraer S.A.	Aviation
Fras-le S.A.	Automotive
Fundação Espaço ECO	Public Services
Gerdau	Steel
Globo	Communications
University Hospital (USP)	Health Care
Sapopemba Hospital (HESAP)	Health Care
IBOPE	General Services
Instituto Nacional de Processamento de Embalagens Vazias	Packaging
Joal Teitelbaum Engineering Office	Construction
Klabin S.A.	Pulp and Paper
Laboratorio Weinmann	Health Care
Mantecorp Ltda.	Pharmaceutical
Masa Ltda.	Plastics
SABESP	Public Services (Water and Sewer)
Natura Cosméticos	Pharmaceutical
Nextel Ltda.	Telecommunication
Oi Telephony	Telecommunication
Philips do Brasil Ltda	Electronics
PRAC	Transportation
Refrescos Guararapes Ltda.	Beverages
Samarco	Steel
Senai	Education
Sociedade Educacional Santa Catarina	Education
Suzano Papel e Celulose	Pulp and Paper
Thyssen Krupp Ltda.	Automotive
Tribunal de Justiça - SC	Public Services (Law)
U&M	Steel
Unimed Brasil	Health Care
Volvo do Brasil Veículos Ltda.	Automotive